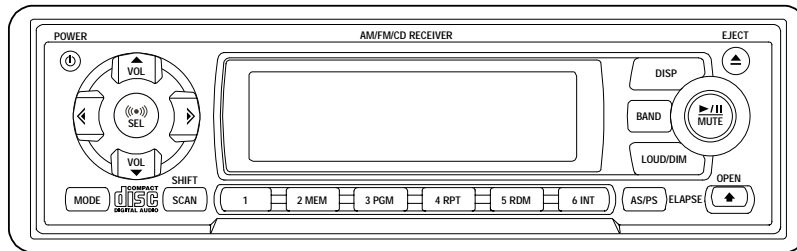


Installation and Operations Manual

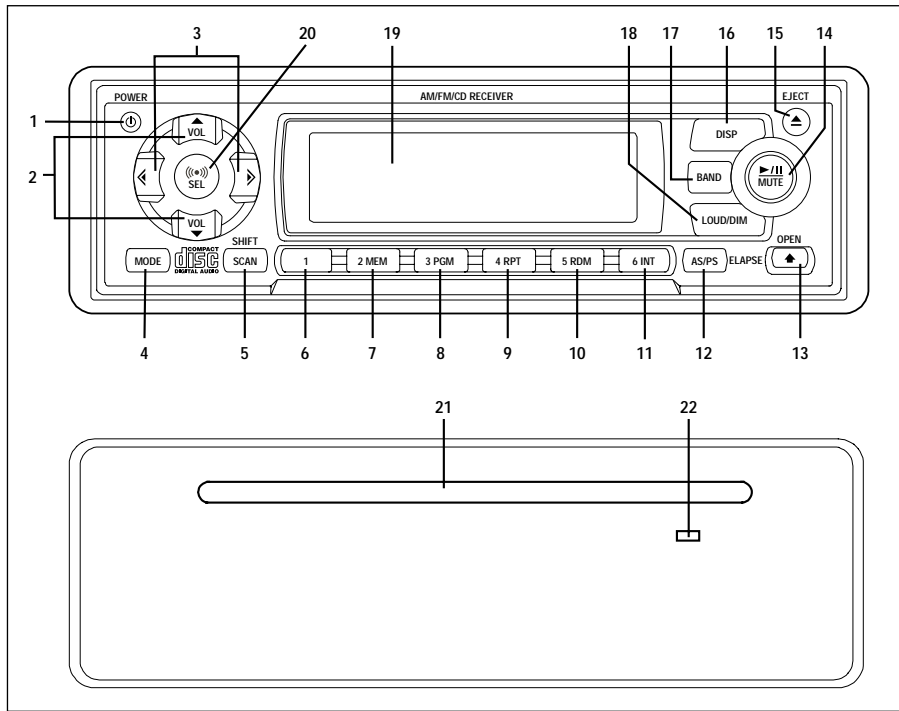


M4100CD Water-Resistant AM/FM/WB and CD Stereo Receiver

**LINEAR
SERIES**

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Location and Function of Control at a Glance



- 1. Power Button:** Turns the unit On/Off.
- 2. Audio Control Buttons:** Adjusts the Volume, Bass, Treble, Balance and Fader.
- 3. Multi-Function Buttons:** Adjusts the radio frequency, sets the clock, and changes CD tracks.
- 4. Mode Button:** Changes sequentially through the following sources:
Radio Tuner > CD > CD Changer > Auxiliary > Radio Tuner.
- 5. Radio Station Scan/Shift Button:**
Radio: Scans through the strong stations in the current radio band.
CD: Press this button to access secondary function keys in CD mode.
- 6. Multi-Function Button 1:**
Radio: Recalls a memorized radio station, and programs a radio station into memory (See Radio Operation for more information).
- 7. Multi-Function Button 2/MEM:**
Radio: Recalls a memorized radio station, and programs a radio station into memory (See Radio Operation for more information).
CD: Programs a CD track into memory (See CD Operation for more information).
- 8. Multi-Function Button 3/PGM:**
Radio: Recalls a memorized radio station, and programs a radio station into memory (See Radio Operation for more information).
CD: Enters CD track program mode (See CD Operation for more information).

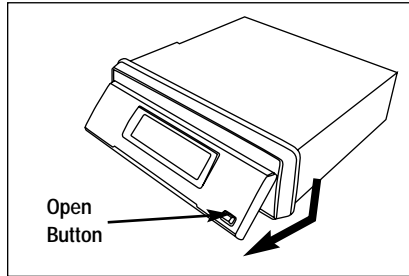
Location and Function of Control at a Glance

- 9. Multi-Function Button 4/RPT:**
Radio: Recalls a memorized radio station, and programs a radio station into memory (See Radio Operation for more information).
CD: Enters CD track repeat mode (See CD Operation for more information).
- 10. Multi-Function Button 5/RDM:**
Radio: Recalls a memorized radio station, and programs a radio station into memory (See Radio Operation for more information).
CD: Plays all tracks on the current disc in random order (See CD Operation for more information).
- 11. Multi-Function Button 6/INT:**
Radio: Recalls a memorized radio station, and programs a radio station into memory (See Radio Operation for more information).
CD: Plays the first 10 seconds of each track on the current disc (See CD Operation for more information).
- 12. AS/PS/Elapse Button:**
Radio: Automatic memory storing and preset scan (See Radio Operation for more information).
CD: Displays elapsed time of current CD track.
- 13. Open Button:** Access the CD slot, or allows the removal of the detachable face.
- 14. Play/Pause and Mute Button:**
Radio/Aux In: Mutes audio level.
CD: Pauses the CD player.
- 15. Eject Button:** Ejects the disc from the CD Slot when the front panel is open.
- 16. Display Button:** Displays either the clock, radio station or track number. (See setting the clock for more information).
- 17. Band Button:** Selects the radio band in the following order: FM1, FM2, AM, WX.
- 18. Loud Button:** Enhances sound quality by boosting the bass and treble tones.
DIM Button: Adjusts the brightness of the LCD display backlight.
- 19. Display Area:** Displays Radio, CD and Clock functions.
- 20. Audio Mode Selection Button:** Selects the desired audio mode in the following order: Volume, Bass, Treble, Balance and Fader.
Audio Beep: Press and hold the SEL button (20) for more than 2 seconds to turn beep on/off.
- 21. CD Slot:** To access the CD Slot located behind the front panel, press the Open button.
- 22. Reset Button:** The Reset Button is located behind the CD Door, below the CD Slot. It must be pressed with either a ballpoint pen tip or paper clip for any of the following reasons:
- Initial installation of the unit when all wiring is completed.
 - All the function buttons do not operate.
 - Error symbol on the display.
- If there is a disc in the slot when the reset button is pressed the disc will be ejected.

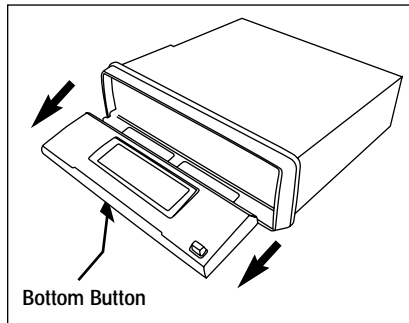
Using the Detachable Front Panel

To Detach the Front Panel

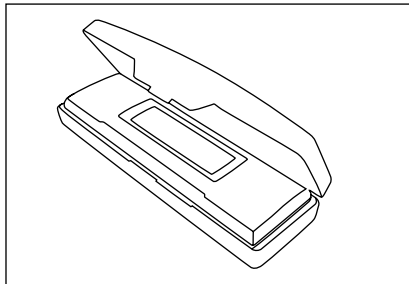
1. Press the OPEN button (13), and the front panel will slide down to a flat position.



2. With the front panel down, press the bottom button of the front panel upward and pull the front panel out from the panel bracket.

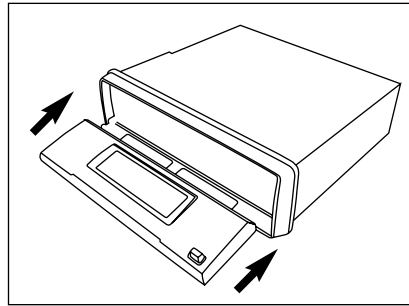


3. For safekeeping, store the front panel in the supplied protective case immediately after being removed.

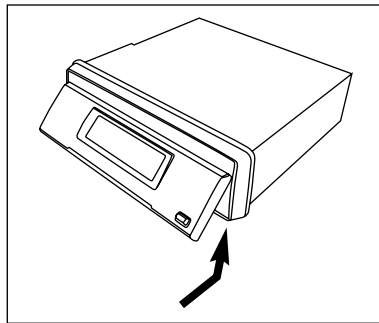


To Install the Front Panel

1. While the panel bracket is in the down position, insert the front panel.



2. After the front panel is securely inserted on the panel bracket, push the front panel into position, the unit is now ready for operation.



Radio Operation

Listening to the Radio

1. Press the "BAND" button (17) to select a radio band: FM1, FM2, AM or WX (weather band).

2. AM or FM Station Selection:

Automatic Seek Station Selection: Press the ◀ or ▶ button (3) to automatically seek the next strong station.

Scan Station Selection: Press the scan button (5) to automatically scan through strong stations in the current radio band. The radio will pause for 5 seconds at each strong station. Each time the frequency flashes on the display. Press the scan button again to hold the current station.

Manual Station Selection: Press the ◀ or ▶ button for more than 3 seconds to select manual station selection, and "MAN" will appear in the display. Use either button to manually seek up and down the frequency scale.

Note: If either button is not pressed for several seconds, the unit will return to Automatic Seek Station Selection and "AUTO" will appear on the display.

Weather Band Station Selection (WX):

Manual Station Selection: Press the ◀ or ▶ button to manually seek stations.

Programming the Radio

You can program up to 12 FM radio stations and 6 AM radio stations.

Manual Station Recall Programming

1. Press the "BAND" button (17) to select a radio band: FM1, FM2 or AM.
2. Select the desired station.
3. Press and hold one of the six station recall buttons (6-11), the button number and "CH" appears in the display area. Release the button.
4. Repeat the procedure to memorize more stations as desired.

Automatic Station Store

1. Press the "BAND" button to select a radio band: FM1, FM2 or AM.
2. Press the **AS/PS** button (12) for more than 2 seconds, the radio will then search the current frequency and check the signal strength until the 6 strongest stations are stored into the corresponding preset number button. When completed, it will change to scan preset stations automatically.

Preset Scan

Press the **AS/PS** button to scan the preset stations. The radio will hold at that preset number for several seconds, then will scan again. To stop scanning when a desired station is reached press the **AS/PS** button again.

Sound Controls

Adjusting the Volume, Bass Treble, Balance and Fader

1. Press the **SEL** button to select the desired audio mode. The audio modes will be display in the display area in the following order: Volume, Bass, Treble, Balance and Fader.
2. Press the **VOL** or **VOL** buttons to adjust the sound of the audio mode selected: Volume, Bass, Treble, Balance or Fader.

Initial Volume Level

To program the Initial Volume Level, adjust the volume to the desired level, then press the **POWER** button for more than 3 seconds. The next time the unit is turned on, the volume will be at this initial level.

Adjusting the Audio Beep

Press the **SEL** button for more then 2 seconds to turn beep On/Off. When the beep is on the **SEL** icon will be displayed.

Adjusting the Loud Feature

Press the **LOUD** button (18) to increase the bass output, "LOUD" will then show in the display area. Press the button again to release this function.

Mute

In Radio/Aux In mode, press the **MUTE** button (14) mute audio level. Press the button again to release this function.

General Operations

Setting the Clock

1. Press DISP button (16) for more than 3 seconds until the clock shown in the display area is flashing.
2. Press the ◀ button (3) to adjust the hours
3. Press the ▶ button (3) to adjust the minutes.

DISPLAY PRIORITY

Time Display Priority

Press and hold DISP button (16) while pressing the ◀ button to select Time Priority. Pressing the DISP button while in Time Priority will temporarily display selected station frequency.

In CD Mode

When the display priority is set to "TIME", the clock will be displayed indicating the current time.

Pressing DISP button will temporarily display CD track number, time remaining or elapsed time depending on current CD display option selected. After 5 seconds the display will return to the time.

Frequency Display Priority

Press and hold DISP button while pressing the ▶ button to select Frequency Priority. Pressing DISP button while in Frequency Priority will temporarily display clock.

In CD Mode

When the display priority is set to "Frequency", display indicates CD track number on current CD display option selected.

Pressing the DISP button will temporarily display the time. After 5 seconds the display will return to the CD display.

Illumination Dimmer

Press LOUD / DIM button (18) for more than 2 seconds to change the brightness of the LCD display backlight.

Selecting a Mode

Press MODE button (4) to choose between Radio mode, CD mode, CDC mode or AUX IN mode.

CD Changer Operation (Optional)

Select a Disc

1. Load your CD Changer with compact discs per the manufacturer's operating instructions.
2. Press the (SCAN) SHIFT button (5) to enter Shift Mode. "SHIFT" will then appear in the display, indicating the CD Changer is active.
3. To change the current CD, press the ◀ or ▶ button (3) to scroll through the CDs loaded in the CD Changer. If there isn't any operation for several seconds, the unit will exit Shift Mode automatically.

Notes on CD-Rs and CD-RWs:

- Be sure to only use discs with the following labels in this unit:
- The unit cannot play a CD-R and CD-RW that is not finalized. (Please refer to the manual of your CD-R/CD-RW recorder or CD-R/CD-RW software for more information on the finalizing process).
- This unit will not play MP3 music or WMA music recorded on any CD-R or CD-RW disc.
- Depending on the recording status/conditions of the disc and the equipment used for the recording, some CD-Rs/CD-RWs may not be compatible with this unit. To have more reliable play back, please follow these recommendations:
 - Use CD-RWs with speed 1x to 4x and write at speed 1x to 2x.
 - Use CD-Rs with speed 1x to 8x and write at speed 1x to 2x.
 - Do not play a CD-RW which has been written on more than 5 times.



CD Operation

Inserting a Disc

Push the Open button (13) to open the front panel. Insert a disc into the CD Slot, label side up, and the disc will begin to play automatically.

Ejecting a Disc

Push the Open button to open the front panel. Press the EJECT button (15) to stop CD play and the disc will be ejected.


Select Tracks

Press the ◀ or ▶ buttons to move to the previous track or the following track. The track number appears in the Display Area.


Fast Forward and Fast Reverse

Press and hold the ◀ or ▶ buttons to fast forward or fast reverse. Disc play starts from when you release the button.


Pause Disc Play

Press the  button (14) to pause the CD player. Press it again to resume play.


Repeat the Same Track

Press the  button (9) to continuously repeat the same track. Press it again to stop repeat.

Play All Tracks in Random Order



Press the  button (10) to play all tracks on the current disc in random order. Press it again to stop random play.


Intro Scan





Press the  button (11) to play the first 10 seconds of each track. Press it again to cancel the function and listen to the track.

Program CD Tracks

Use the Program function to select up to 32 CD tracks to play in any order. The Program function allows you to select a track number for each spot in the playing sequence. A CD must be inserted to use the Program function.

1. Press the  button (7) to enter Program mode. PGM starts flashing and the "P-01" appears in the display.
2. Press the ◀ or ▶ button to choose a track number. Then press the  button to memorize it. Select the next track and it will be memorized as "P-02".

Repeat these steps to program tracks in the desired order. Then press the  button to play the CD in programmed order. When you have programmed 32 tracks, "FULL" will appear on the display.

- When the CD is playing in program order, press the  button to exit the PGM mode.
- When the CD is playing in programmed order, pressing the  button will clear all the programmed content and "CLR" will appear in the display.
- If you don't press the  button to carry out program setting, press the  button for several seconds, "NO-P" will appear in the display.

Track/Time Display

To display the running time/remaining time of track, press the AS/PS button (12).

Installation Procedure

Step 1: The radio chassis is designed to be "Sleeve Mounted" through a opening in the dashboard panel. The required opening size is 182mm (7-3/16") x 84mm (3-5/16"). Cut or enlarged an opening in the dashboard to accommodate the mounting sleeve.

Step 2: If you are replacing an existing factory installed radio, an adapter harness might be available for your vehicle to eliminate the need for cutting your factory wiring. Contact Radio Shack or other car stereo installation centers for the availability of a harness for your vehicle.

Step 3: Insert the mounting sleeve into the hole in the dashboard. Bend the metal tabs on the sleeve to secure the mounting sleeve to the dashboard.

Step 4: Bring all wiring for the connection of the unit (including the antenna) through the center of the mounting sleeve. Connect the wiring as follows:

Yellow Wire (w/Fuse): Connect this wire to a constant +12 volt power source (a power source that is not controlled by the ignition key).

Red Wire: Connect this wire to a switched +12 volt power source (a power source turned on and off by the ignition key).

Blue Wire: Connect this wire to the (+) power antenna activation circuit. If no power antenna exists, tape-off the end of this wire to prevent shorting out the unit.

Black Wire: Connect this wire to the frame of the vehicle (ground). This wire is the chassis grounding wire for the unit.

White Wire: Connect this wire to the Left Front Speaker (+) positive terminal or wire.

White Wire with Black Stripe: Connect this wire to the Left Front Speaker (-) negative terminal or wire.

Green Wire with Black Stripe: Connect this wire to the Left Rear Speaker (-) negative terminal or wire.

Green Wire: Connect this wire to the Left Rear Speaker (+) positive terminal or wire.

Gray Wire: Connect this wire to the Right Front Speaker (+) positive terminal or wire.

Gray Wire with Black Stripe: Connect this wire to the Right Front Speaker (-) negative terminal or wire.

Purple Wire with Black Stripe: Connect this wire to the Right Rear Speaker (-) negative terminal or wire.

Purple Wire: Connect this wire to the Right Rear Speaker (+) positive terminal or wire.

Gray Cable with Red/White RCA Connectors: Provides L/R Channel audio signal output to an additional amplifier.

Note: This unit is designed to connect to (4) four speakers. If the installation only requires (2) two speakers, use the White and Gray wire sets to connect the speakers.

WARNING!

Any wires left unconnected must be taped-off or capped off to prevent shorting.

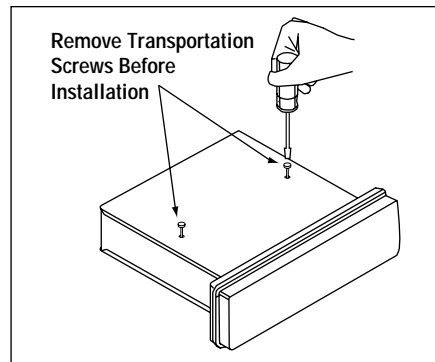
DO NOT connect speaker ground wires together.

DO NOT connect speaker ground wires to the chassis of the vehicle.

DO NOT connect front and rear speaker wires together.

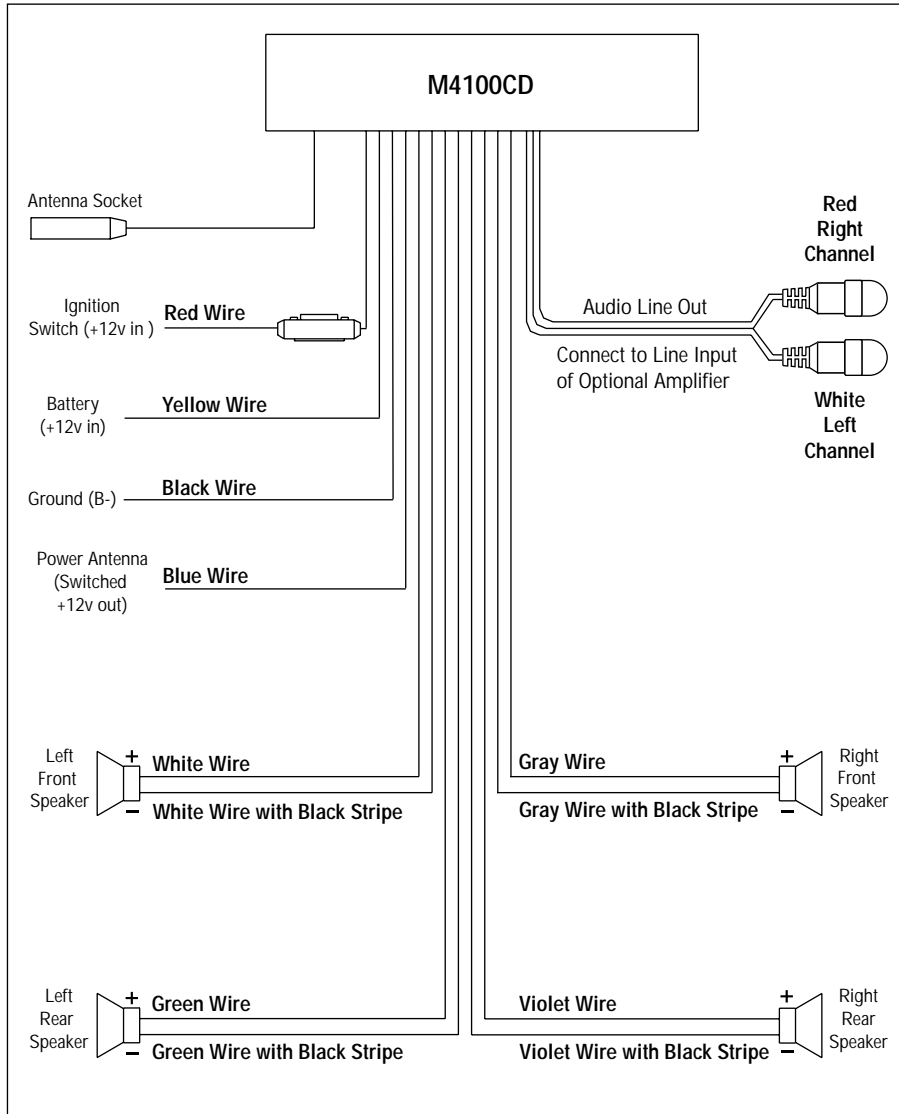
FAILURE TO FOLLOW ANY OF THESE WARNINGS WILL RESULT IN DAMAGE TO THIS UNIT AND VOIDS THE WARRANTY.

Remove Transportation Screws: Before installing the unit, please remove the two screws shown in the illustration below.

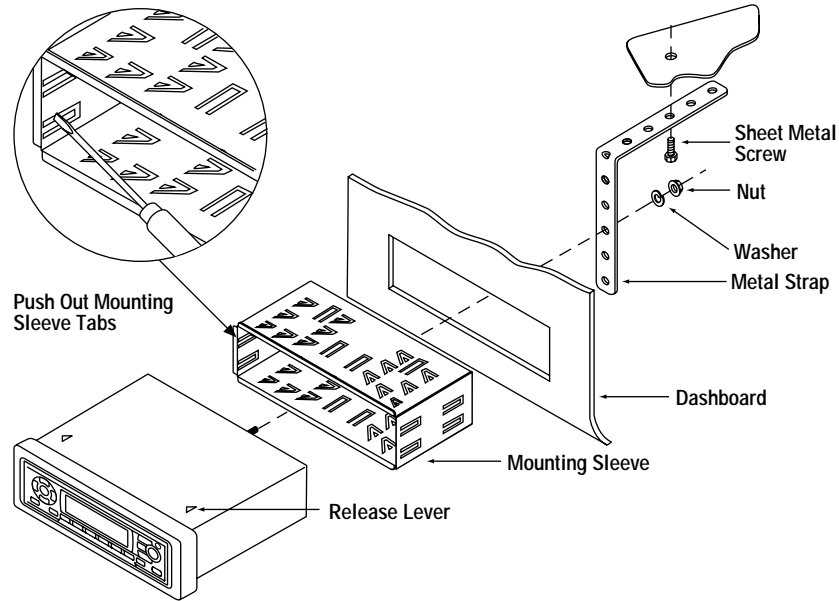


Note: If this unit is to be installed in a boat or near a spa, you should use the two pieces of plastic film (30 mm X 20 mm) supplied to seal the two holes after removing the screws.

Wiring Diagram



Final Installation

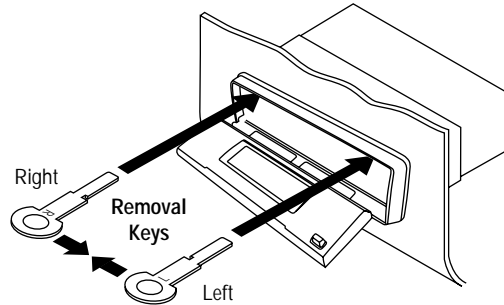


Removing the Unit from Dashboard:

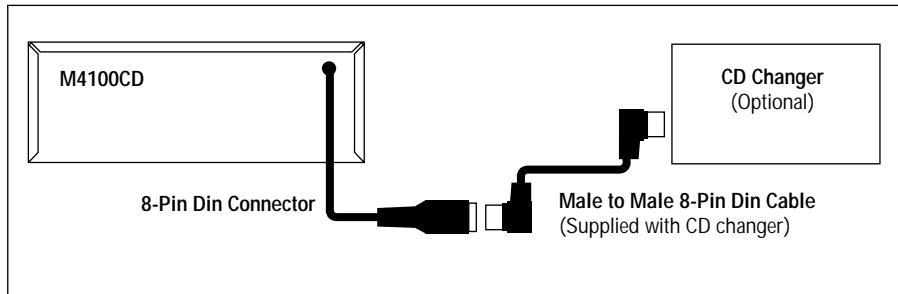
Remove the metal strap holding the back of the radio chassis.

With the front panel in the down position, insert removal keys into the small slots in the upper part of chassis panel. There is a right and left removal key, R and L are stamped on the keys.

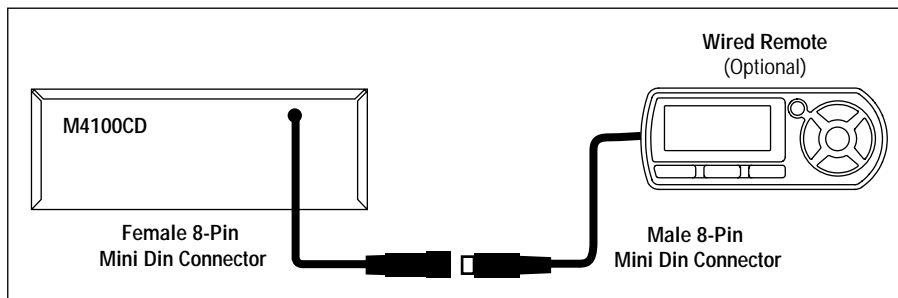
Once the keys are inserted, push the keys toward each other. Pull gently and the radio will slide out.



CD Changer Connection



Wired Remote Connection



Specifications

GENERAL

Power Supply Requirements:
DC 12 Volts, Negative Ground

Chassis Dimensions:
178 mm (W) x 165 (D) x 50 (H)

Tone Controls:
Bass: 100 Hz \pm 10 dB
Treble: 10 kHz \pm 10 dB

Maximum Output Power:
4 x 40 watts

Current Drain:
15 Ampere (Max.)

CD PLAYER

Signal to Noise Ratio:
> 55 dB

Channel Separation:
> 50 dB

Frequency Response:
40Hz – 18 kHz

FM RADIO

Frequency Coverage:
87.5 to 107.9 MHz

Sensitivity (S/N=30dB):
3 μ V

Stereo Separation:
> 30dB

AM RADIO

Frequency Coverage:
530 to 1710 kHz

IF:
450 kHz

Sensitivity (S/N=20dB):
32 dBu

Warranty

ONE (1) YEAR LIMITED WARRANTY

Magnadyne Corporation or its authorized agents will within one year from the date of sale to you, repair, replace or refund the retail sales price of said product or any part thereof, at the option of the Magnadyne Corporation or its authorized agents, if said product or part is found defective in materials or workmanship, when properly connected and operating on the correct power requirements designated for the specific product. This warranty and Magnadyne Corporation or its authorized agents obligations hereunder do not apply where the product was: damaged while in the possession of the consumer, subjected to unreasonable or unintended use, not reasonably maintained, utilized in commercial or industrial operations, or serviced by anyone other than Magnadyne Corporation or its authorized agents, or where the warning seal on the product is broken or the power and/or plugs are detached from the unit. Magnadyne Corporation or any of its authorized agents will not assume any labor costs for the removal and reinstallation of any product found to be defective, or the cost of transportation to Magnadyne Corporation or its authorized agents. Such cost are the sole responsibility of the purchaser.

This warranty does not cover the cabinet appearance items or accessories used in connection with this product, or any damage to recording or recording tape, or any damage to the products resulting from improper installation, alteration, accident, misuse, abuse or acts of nature.

MAGNADYNE CORPORATION OR ITS AUTHORIZED AGENTS SHALL NOT BE LIABLE TO ANYONE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR CLAIMS EXCEPT THOSE ACCORDED BY LAW. NO EXPRESSED WARRANTY OR IMPLIED WARRANTY IS GIVEN EXCEPT THOSE SET FORTH HEREIN. NO IMPLIED WARRANTY SHALL EXTEND BEYOND ONE YEAR FROM THE DATE OF SALE.

This warranty extends only to the original purchaser of the product and is not transferable. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may have other rights that vary from state to state.

Defective merchandise should be returned to the original point of purchase or secondly, to:
Magnadyne Corporation, 1111 W. Victoria Street, Compton CA 90220
www.magnadyne.com

Return Authorization must be obtained before sending, or merchandise may be refused.